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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT PAPER NUMBER

1772

DATE MAILED: 04/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/788,351

Applicant(s)

USUI ET AL.

Examiner

Walter B Aughenbaugh

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 19,21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Acknowledgement of Applicant's Amendments

1. The amendments made to claims 1, 3, 5, 7, 11, 13 and 17 in the Amendment filed January 23, 2004 (Amdt. E) have been received and considered by Examiner.
2. New claim 23 presented in Amdt. E has been received and considered by Examiner.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. 112 rejection of claims 1, 3, 5, 11 and 17 made of record in paragraph 9 of Paper 17 has been withdrawn due to the amendments to claims in Amdt. E.
4. The 35 U.S.C. 102 rejection of claims 1 and 19 made of record in paragraph 10 of Paper 17 has been withdrawn due to the amendments to claim 1 in Amdt. E. The "one surface contacting an imaging surface of a printing plate" must be given weight.
5. The 35 U.S.C. 103 rejections of claims 3, 4, 13-18 and 22 made of record in paragraphs 11-15 of Paper 17 have been withdrawn due to the amendment to claim 1 or 13 in Amdt. E.

REPEATED REJECTIONS

6. The 35 U.S.C. 102 rejection of claims 7-10 and 21 made of record in paragraph 10 of Paper 17 has been repeated for the reasons previously made of record in paragraph 10 of Paper 17 and for the following reasons that address the amendments to claim 7: the recitation "which contacts a coating film of the planographic printing plate when the planographic printing plate is packaged" is a method limitation that has not been given patentable weight since the method of forming the sheet material is not germane to the issue of patentability of the sheet material itself; this language does not require that the contact surface contact a coating film of a planographic printing plate. In regard to the added recitation that the noncontact surface has "a Bekk

Art Unit: 1772

smoothness from 3 seconds to 55 seconds”, Hayashi et al. teach that the paper having smooth surfaces has a Bekk smoothness of 5 to 10,000 seconds (col. 2, lines 48-54 and col. 8, lines 39-42), a range that overlaps with the ranges of 3 to 900 seconds and 3 to 55 seconds claimed in claim 7. Given that the sheet of paper has “smooth surfaces” (col. 2, lines 40 and 45-47 and col. 8, lines 30-39), Examiner interprets the use of the plural form of “surface” to indicate that both surfaces of the sheet of paper have a degree of smoothness as quantified by the stipulated Bekk smoothness range of 5-10,000.

7. The 35 U.S.C. 103 rejection of claims 2 and 20 made of record in paragraph 11 of Paper 17 has been repeated for the reasons previously made of record in paragraph 11 of Paper 17.

8. The 35 U.S.C. 103 rejection of claim 11 made of record in paragraph 12 of Paper 17 has been repeated for the reasons previously made of record in paragraph 12 of Paper 17. Applicant acknowledges that the term “relative humidity” is a more clear term for the term “moisture” that does not narrow the scope of the claim on page 9 of Amdt. E, and therefore, that the terms “relative humidity” and “moisture” are equivalents.

9. The 35 U.S.C. 103 rejection of claim 12 made of record in paragraph 13 of Paper 17 has been repeated for the reasons previously made of record in paragraph 13 of Paper 17.

10. The 35 U.S.C. 103 rejection of claim 5 made of record in paragraph 14 of Paper 17 has been repeated for the reasons previously made of record in paragraph 14 of Paper 17. Applicant acknowledges that the term “relative humidity” is a more clear term for the term “moisture” that does not narrow the scope of the claim on page 9 of Amdt. E, and therefore, that the terms “relative humidity” and “moisture” are equivalents.

Art Unit: 1772

11. The 35 U.S.C. 103 rejection of claim 6 made of record in paragraph 15 of Paper 17 has been repeated for the reasons previously made of record in paragraph 15 of Paper 17.

NEW OBJECTIONS

Claim Objections

12. Claims 19 and 21 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The sole limitation of claim 19 was incorporated into claim 1 in Amdt. E and therefore claim 19 fails to further limit the subject matter of claim 1. The sole limitation of claim 21 was incorporated into claim 7 in Amdt. E and therefore claim 21 fails to further limit the subject matter of claim 7.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1, 3, 5, 7-12, 17 and 19-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In regard to claims 1, 7-12 and 19-23, the embodiment where the two sides of the sheet material have different Bekk smoothness ranges or different Bekk smoothness values is

Art Unit: 1772

not supported in the specification or in the original set of claims; all of the embodiments discussed in the specification pertain to a sheet material having only one Bekk smoothness value. In regard to claims 3, 5, 11 and 17, the term “relative humidity” is not supported in the specification, and the specification does not describe the “moisture” property in a way that supports replacement of the term “moisture” with the term “relative humidity”.

Claim Rejections - 35 USC § 102

15. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Busch.

Busch teaches a sheet comprising opposing surfaces (a first surface, the underside coated with an emulsion coating containing a coarse, solid particulate material, and an opposing surface, a clay coating having a high degree of surface smoothness) (col. 1, lines 41-60, col. 2, lines 21-27, and Fig. 2), where the opposing surface has a different Bekk smoothness from that of the first surface (since the first surface contains a coarse, solid particulate material and the opposing surface has a high degree of surface smoothness). The recitations “for packaging a planographic printing plate” and “contacting an imaging surface of the printing plate when packaged with the printing plate” are intended use phrases that have not been given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior art article satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQd 1647 (1987).

Claim Rejections - 35 USC § 103

16. Claims 1 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coppens et al. in view of Hayashi et al.

Art Unit: 1772

Coppens et al. teach a package sheet structure comprising at least one planographic printing plate (col. 1, lines 30-34 and col. 3, lines 53-58) comprising a hydrophilic base (col. 4, lines 5-6) and an imaging surface (photosensitive layer, col. 3, lines 54-56). Coppens et al. teach that the package sheet structure comprises a packaging sheet material (paper spacer, col. 3, lines 41-43) packaging the planographic printing plate (therefore, for packaging a planographic printing plate) comprising opposing surfaces with one surface contacting the imaging surface of the planographic printing plate (col. 3, lines 41-43).

Coppens et al. fail to teach that the surface contacting the imaging surface has a Bekk smoothness of from 3 to 900 seconds and that the opposing surface has a Bekk smoothness of from 3 to 55 seconds.

Hayashi et al., however, disclose a photographic sheet material composed of a support and a sensitive emulsion coated on the support (col. 8, lines 30-39 and col. 4, line 45). Hayashi et al. disclose that a sheet of paper having smooth surfaces is inserted between every two sheets of the sheet material (col. 8, lines 30-39) or the sheets of paper and sheets of the sheet material are placed alternately (col. 9, lines 3-8). Hayashi et al. disclose that the paper has a Bekk smoothness of 5 to 10,000 seconds (col. 2, lines 48-54 and col. 8, lines 39-42), a range that overlaps with the ranges of 3 to 900 seconds and 3 to 55 seconds claimed in claim 1. Given that the sheet of paper has "smooth surfaces" (col. 2, lines 40 and 45-47 and col. 8, lines 30-39), Examiner interprets the use of the plural form of "surface" to indicate that both surfaces of the sheet of paper have a degree of smoothness as quantified by the stipulated Bekk smoothness range of 5-10,000. Therefore, one of ordinary skill in the art would have recognized to have used paper as the paper spacer of Coppens et al. that has surfaces having a Bekk smoothness of 5 to 10,000 seconds, a

Art Unit: 1772

range that overlaps with the claimed ranges of 3 to 900 seconds and 3 to 55 seconds, since paper having surfaces having Bekk smoothness values of from 5 to 10,000 seconds are notoriously well known suitable smoothness values for packaging photographic sheet material as taught by Hayashi et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used paper as the paper spacer of Coppens et al. that has surfaces having a Bekk smoothness of 5 to 10,000 seconds, a range that overlaps with the claimed ranges of 3 to 900 seconds and 3 to 55 seconds, since paper having surfaces having Bekk smoothness values of from 5 to 10,000 seconds are notoriously well known suitable smoothness values for packaging photographic sheet material as taught by Hayashi et al.

17. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coppens et al. in view of Hayashi et al. and in further view of Usui (US 6,306,254) and in further view of Patent Abstract of Japan 03036545 of Goto et al.

Coppens et al. and Hayashi et al. teach the material as discussed above. Hayashi et al. teach that the paper has a basis weight of 5 to 200 g/m² (col. 3, lines 8-10) and a pH of 3-8 (claim 4, col. 8). Craft paper is listed as a suitable paper for use in the invention (col. 2, lines 39-42).

Coppens et al. and Hayashi et al. fail to teach that the sheet has a density of 0.7 to 0.85 g/cc or a relative humidity of 4% to 6%.

Usui (US 6,306,254) discloses an interleaf paper for protecting a photosensitive printing plate material coated with a water-soluble oxidation preventing layer which enables stabilization of the sensitivity of the photosensitive printing plate material in a short period of time (col. 1, lines 6-10 and col. 2, lines 22-26). An embodiment of the invention is disclosed as an interleaf

Art Unit: 1772

paper for covering photosensitive printing plate material with a weight of about 38g/m^2 , a density of about 0.8g/cm^3 , and a moisture of about 6.0% that was formed from kraft pulp (col. 2, lines 51-62). A suitable density of interleaf paper for protecting photosensitive printing plate material is thus established by Usui. Therefore, one of ordinary skill in the art would have recognized to have synthesized the sheets taught by Coppens et al. and Hayashi et al. with the density specified by Usui in order to provide a paper capable of effectively protecting the printing plate and to enable stabilization of the sensitivity of the photosensitive printing plate material in a short period of time as taught by Usui.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have synthesized the sheets taught by Coppens et al. and Hayashi et al. with the density specified by Usui in order to provide a paper capable of effectively protecting the printing plate and to enable stabilization of the sensitivity of the photosensitive printing plate material in a short period of time as taught by Usui.

In regard to the relative humidity limitation, Patent Abstract of Japan 03036545 of Goto et al. discloses that the moisture content ratio of slip-sheets, which are printing plate packaging materials equivalent to interleaf sheets, is confined to 8% (line 11 of Constitution section, i.e., the moisture content ratio is no more than 8%); consequently, deterioration in visible image formability during packing and storing is thus prevented (Purpose section). Applicant acknowledges that the term "relative humidity" is a more clear term for the term "moisture" that does not narrow the scope of the claim on page 9 of Amdt. E, and therefore, that the terms "relative humidity" and "moisture" are equivalents. One of ordinary skill in the art would have recognized to have limited the moisture content ratio of the sheet taught by Coppens et al. and

Hayashi et al. to a moisture content ratio of 4-6% in order to prevent deterioration in visible image formability during packing and storing as taught by Patent Abstract of Japan 03036545 of Goto et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the moisture content ratio of the interleaf sheet taught by Coppens et al. and Hayashi et al. to a moisture content ratio of 4-6% in order to prevent deterioration in visible image formability during packing and storing as taught by Patent Abstract of Japan 03036545 of Goto et al.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the moisture content ratio of the interleaf sheet taught by Coppens et al. and Hayashi et al. to a moisture content ratio of 4-6%, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

18. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coppens et al. in view of Hayashi et al. and in further view of Dirx and in further view of Usui et al. (JP 8-39958).

Coppens et al. and Hayashi et al. teach the material as discussed above. Coppens et al. and Hayashi et al. fail to teach that the material is cardboard with a weight of approximately 640 g/m² and a density of approximately 0.72 g/cc. Dirx, however, disclose that a sheet of cardboard (Figure 1, item 16) is provided under a stack of photographic plates as a component of a package for photographic plates (col. 3, lines 35-36). The cardboard sheet avoids the occasional cutting of the wrapping foil (Figure 1, item 15 and col. 3, line 24) by the edges of the lowermost plate (col. 3, lines 37-38). One of ordinary skill in the art would have recognized to provide a sheet of

Art Unit: 1772

cardboard under the stack of sheets taught by Coppens et al. and Hayashi et al. in order to avoid the occasional cutting of the wrapping foil by the edges of the lowermost sheet as taught by Dirx.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a sheet of cardboard under the stack of sheets taught by Coppens et al. and Hayashi et al. in order to avoid the occasional cutting of the wrapping foil by the edges of the lowermost sheet as taught by Dirx.

In regard to the cardboard weight basis and density, Usui et al. (JP 8-39958) teach a protection paper cover (Figure 1, item 3) which is placed between every 50 photosensitive sheets (item 1, Figure 1) in a stack of the photosensitive sheets (paragraph 3). The protection paper cover of Usui et al. is equivalent to the cardboard sheet 16 in Figure 1 of Dirx. The bundle of 50 photosensitive sheets sandwiched between protection paper covers are wrapped in interior paper (Figure 1, item 4). The interior paper 4 is equivalent to the wrapping foil 15 of Dirx. Usui et al. discloses an example of the protection paper cover that has a weight basis of 640g/m² and a density of 0.72g/cm³ (paragraph 18 and chart on page 3, Example 1). Usui et al. therefore establish the claimed weight basis and density values of the paperboard material (referred to as cardboard by Dirx and protection paper by Usui et al.) as suitable for paperboard for use as an effective packaging material for photosensitive sheets. Therefore, one of ordinary skill in the art would have recognized to have synthesized the cardboard sheet of Dirx with the weight basis and density specified by Usui et al. in order to provide a paperboard sheet capable of effectively avoiding the occasional cutting of the wrapping foil by the edges of the lowermost photothermographic sheet as taught by Dirx.

Art Unit: 1772

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have synthesized the cardboard sheet of Dirx with the weight basis and density specified by Usui et al. in order to provide a paperboard sheet capable of effectively avoiding the occasional cutting of the wrapping foil by the edges of the lowermost photothermographic sheet as taught by Dirx.

19. Claims 13-16, 18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coppens et al. in view of Hayashi et al. and in further view of Usui (US 6,306,254).

Coppens et al. and Hayashi et al. teach the package sheet structure as discussed in paragraph 11 of Paper 17. In regard to claim 13, Coppens et al. and Hayashi et al. fail to teach that the sheet has a density of 0.7 to 0.85 g/cc. Usui (US 6,306,254) discloses an interleaf paper for protecting a photosensitive printing plate material coated with a water-soluble oxidation preventing layer which enables stabilization of the sensitivity of the photosensitive printing plate material in a short period of time (col. 1, lines 6-10 and col. 2, lines 22-26). An embodiment of the invention is disclosed as an interleaf paper for covering photosensitive printing plate material with a weight of about 38g/m^2 , a density of about 0.8g/cm^3 , and a moisture of about 6.0% that was formed from kraft pulp (col. 2, lines 51-62). A suitable density of interleaf paper for protecting photosensitive printing plate material is thus established by Usui. Therefore, one of ordinary skill in the art would have recognized to have synthesized the sheets of Coppens et al. and Hayashi et al. with the density specified by Usui in order to provide a paper capable of effectively protecting the printing plate and to enable stabilization of the sensitivity of the photosensitive printing plate material in a short period of time as taught by Usui.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have synthesized the sheets of Coppens et al. and Hayashi et al. with the density specified by Usui in order to provide a paper capable of effectively protecting the printing plate and to enable stabilization of the sensitivity of the photosensitive printing plate material in a short period of time as taught by Usui.

In regard to claims 14-16 and 22, Coppens et al. fail to explicitly teach that a surface of the paper spacer has a Bekk smoothness from 3 to 100 seconds, 250 to 900 seconds, 8 to 560 seconds or 3 to 55 seconds as claimed in claims 14, 15, 16 and 22, respectively. However, Hayashi et al. disclose that paper having smooth surfaces has a Bekk smoothness of 5 to 10,000 seconds (col. 2, lines 48-54 and col. 8, lines 39-42), a range that overlaps with the ranges of 3 to 100 seconds, 250 to 900 seconds and 8 to 560 seconds claimed in claims 14, 15 and 16 of the instant application, respectively. Given that the sheet of paper has "smooth surfaces" (col. 2, lines 40 and 45-47 and col. 8, lines 30-39), Examiner interprets the use of the plural form of "surface" to indicate that both surfaces of the sheet of paper have a degree of smoothness as quantified by the stipulated Bekk smoothness range of 5-10,000. Therefore, one of ordinary skill in the art would have recognized to used paper as the paper spacer of Coppens et al. that has a Bekk smoothness of 5 to 10,000 seconds, a range that overlaps with the ranges of 3 to 100 seconds, 250 to 900 seconds, 8 to 560 seconds and 3 to 55 seconds claimed in the instant application, since paper having Bekk smoothness values of from 5 to 10,000 seconds are notoriously well known suitable smoothness values for packaging photographic sheet material as taught by Hayashi et al.

Art Unit: 1772

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used paper as the paper spacer of Coppens et al. that has a Bekk smoothness of 5 to 10,000 seconds, a range that overlaps with the ranges of 3 to 100 seconds, 250 to 900 seconds, 8 to 560 seconds and 3 to 55 seconds, since paper having Bekk smoothness values of from 5 to 10,000 seconds are notoriously well known suitable smoothness values for packaging photographic sheet material as taught by Hayashi et al.

In regard to claim 18, Coppens et al. teach that the package structure contains cardboard top and bottom sheets having a weight of more than 300 g/m^2 (col. 3, lines 36-40). Usui et al. discloses an example of the protection paper cover that has a weight basis of 640 g/m^2 and a density of 0.72 g/cm^3 (paragraph 18 and chart on page 3, Example 1). Usui et al. therefore establish the claimed weight basis and density values of the paperboard material (referred to as protection paper by Usui et al.) as suitable for paperboard for use as an effective packaging material for photosensitive sheets. Therefore, one of ordinary skill in the art would have recognized to have synthesized the cardboard sheet of Coppens et al. and Hayashi et al. with the weight basis and density specified by Usui et al. since the claimed density value of paperboard material is suitable for paperboard for use as an effective packaging material for photosensitive sheets as taught by Usui et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have synthesized the cardboard sheet of Coppens et al. and Hayashi et al. with the weight basis and density specified by Usui et al. since the claimed density value of paperboard material is suitable for paperboard for use as an effective packaging material for photosensitive sheets as taught by Usui et al.

Art Unit: 1772

20. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coppens et al. in view of Hayashi et al. and in further view of Usui (US 6,306,254) and in further view of Patent Abstract of Japan 03036545 of Goto et al.

Coppens et al., Hayashi et al. and Usui teach the package sheet structure as discussed above. Coppens et al. teach that the paper spacer has a weight of more than 15 g/m^2 and a pH of less than 9 (col. 3, lines 41-46). Coppens et al., Hayashi et al. and Usui fail to teach that the sheet has a relative humidity of 4% to 6%.

Patent Abstract of Japan 03036545 of Goto et al. discloses that the moisture content ratio of slip-sheets, which are printing plate packaging materials equivalent to interleaf sheets, is confined to 8% (line 11 of Constitution section, i.e., the moisture content ratio is no more than 8%); consequently, deterioration in visible image formability during packing and storing is thus prevented (Purpose section). Applicant acknowledges that the term “relative humidity” is a more clear term for the term “moisture” that does not narrow the scope of the claim on page 9 of Amdt. E, and therefore, that the terms “relative humidity” and “moisture” are equivalents. One of ordinary skill in the art would have recognized to have limited the moisture content ratio of the sheet of Coppens et al., Hayashi et al. and Usui to a moisture content ratio of 4-6% in order to prevent deterioration in visible image formability during packing and storing as taught by Patent Abstract of Japan 03036545 of Goto et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the moisture content ratio of the interleaf sheet of Coppens et al., Hayashi et al. and Usui to a moisture content ratio of 4-6% in order to prevent deterioration in

Art Unit: 1772

visible image formability during packing and storing as taught by Patent Abstract of Japan 03036545 of Goto et al.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have limited the moisture content ratio of the sheet of Coppens et al., Hayashi et al. and Usui to a moisture content ratio of 4-6%, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art in absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

ANSWERS TO APPLICANT'S ARGUMENTS

21. Applicant's arguments on pages 9-10 of Amdt. E regarding the 35 U.S.C. 102 rejection of claims 1, 7-10, 19 and 21 have been fully considered but are not persuasive. Applicant argues that "Hayashi fails to disclose, teach or suggest a sheet material with different ranges of Bekk smoothness for each surface", but since the "different ranges" claimed in claims 1, 7, 19 and 21, overlap, these claims do not require that the smoothness ranges be different.

22. Applicant's arguments on pages 10-12 of Amdt. E regarding the 35 U.S.C. 103 rejection of claims 2, 13-16, 20 and 22 have been fully considered but are not persuasive. Applicant argues that Coppens et al. does not teach a planographic printing plate, but Coppens et al. teaches a planographic printing plate at col. 1, lines 30-32. Applicant seems to contend that lithographic printing plates (taught by Coppens et al.) and photothermographic printing plates (taught by Hayashi et al.) are not planographic printing plates, but the definition of "planography" from the Merriam-Webster Online Dictionary is "a process (as lithography) for printing from a plane surface". The first definition of "lithography" from the Merriam-Webster Online Dictionary is "the process of printing from a plane surface (as a smooth stone or metal plate) on which the

Art Unit: 1772

image to be printed is ink-receptive and the blank area ink-repellant". The first definition of "thermography" from the Merriam-Webster Online Dictionary is "a process of writing or printing involving the use of heat; *especially*: a raised-printing process in which matter printed by letterpress is dusted with powder and heated to make the lettering rise" (web printout of the definitions are included with this Office Action). Lithography is plainly a planographic process following to these definitions, and since thermography involves printing, especially printing by letterpress resulting in risen lettering, thermography is clearly a process for printing from a plane surface, i.e. a planographic process. As would follow, lithographic printing plates and photothermographic printing plates are both planographic printing plates.

Applicant argues that since Coppens et al. teach "a method for making lithographic printing plates" and since Hayashi et al. teach "a method for storing sheets of photothermographic film material", there is no motivation to combine the references since the "field of endeavor for these two references are different", but both references teach a packaging structure comprising the particular respective planar item to be packaged sandwiched between packaging sheet material which protects the sensitive surfaces of the item to be packaged. Due to this common teaching, combination of the references is appropriate. Contrary to Applicant's argument in the sentence bridging pages 11 and 12 of Amdt. E, one of ordinary skill in the art concerned with packaging printing plates would certainly have consulted Coppens et al. since as discussed above, Coppens et al. teach planographic printing plates, and since the lithographic printing plates taught by Coppens et al. are planographic printing plates as follows from the definitions of "planography" and "lithography".

Art Unit: 1772

23. Applicant's arguments on pages 12-13 of Amdt. E regarding the 35 U.S.C. 103 rejection of claims 3 and 11 have been fully considered but are not persuasive. Applicant argues Usui cannot be combined with the other references, but Usui teaches an interleaf paper for protecting a photosensitive printing plate material and the same packaging structure comprising the particular respective planar item to be packaged sandwiched between packaging sheet material which protects the sensitive surfaces of the item to be packaged that is taught by Coppens et al. and Hayashi et al., and therefore combination of these three references is appropriate. In response to Applicant's argument that Usui "has nothing to do with protecting photothermographic sheets for a prolonged storage", the speed at which sensitivity is stabilized (such as "in a short period of time" as taught by Usui) does not indicate anything about the length of time the printing plates are intended to be stored. Applicant states that "one of ordinary skill in the art, confronted with a problem of prolonged storage...would never have turned to a reference which stabilizes sensitivity of the printing plates quickly", but the speed at which sensitivity is stabilized (such as "in a short period of time" as taught by Usui) does not indicate anything about the length of time the printing plates are intended to be stored, and regardless of how long the plates are intended to be stored, it is desirable to stabilize the sensitivity of the printing plates as quickly as possible.

24. Applicant's arguments on pages 13-14 of Amdt. E regarding the 35 U.S.C. 103 rejection of claims 4 and 12 have been fully considered but are not persuasive. Applicant's arguments depend entirely on the arguments in regard to the rejection of claims 1 and 7, which have been addressed above.

25. Applicant's arguments on pages 14-15 of Amdt. E regarding the 35 U.S.C. 103 rejection of claims 5 and 17 have been fully considered but are not persuasive. Applicant argues that

Art Unit: 1772

Coppens et al., Hayashi et al., Usui and Goto et al. teach different types of plates, and therefore the combination of references is not appropriate, photothermographic plates such as those taught by Hayashi et al. are photosensitive plates (as Applicant states that Usui and Goto et al. teach), and photosensitive plates are planographic plates since photosensitive plates form a printed image from a plane surface. As stated above, photothermographic printing plates are planographic printing plates. Applicant states that "the packaging material for photothermographic plates and planographic plates should be different", but this is not the case since photothermographic printing plates are planographic printing plates.

26. Applicant's arguments on page 15 of Amdt. E regarding the 35 U.S.C. 103 rejection of claims 6 and 18 have been fully considered but are not persuasive. Applicant repeats the argument that the references teach different types of printing plates, which has been addressed above.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3,767,451 to Busch.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 571-272-1488. The examiner can normally be reached on Monday-Thursday from 9:00am to 6:00pm and on alternate Fridays from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Art Unit: 1772

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Walter B. Aughenbaugh

04/26/04

WBA


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/28/04